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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/500,682	07/02/2004	Dolf Henricus Jozef Van Casteren	NL 020007	6574

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EXAMINER

LE, TUNG X

ART UNIT PAPER NUMBER

2821

DATE MAILED: 10/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/500,682

Applicant(s)

VAN CASTEREN, DOLF
HENRICUS JOZEF

Examiner

Tung X. Le

Art Unit

2821

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,7-10 is/are rejected.
- 7) ☒ Claim(s) 3,5,6 and 11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.


Hoanganh Le
Primary Examiner

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This is a response to the amendment submitted on September 19, 2006; and the final office action has been withdrawn. In virtue of the amendment, claims 1-11 are now presented in the instant application.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-2, 4, 7 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Ranganath et al. (U.S. 5,471,117).

Regarding claim 1, Ranganath discloses in figures 1 and 3 a circuit for a lamp comprising a first sub-circuit (D1-D4, Lm, Cs, Clf, S1-S2, Rs, Cb, Dr, and Dd) for connecting to mains voltage (Vin) of a predetermined frequency for rectifying the mains voltage (the main voltage [Vin] having a constant voltage supplied with a constant frequency itself); a second sub-circuit (S3-S4) connected to the first sub-circuit (figure 3) (via Ds1) for providing an alternating current (switches S3-S4 converting the voltage from DC to AC for driving the lamp) required for the lamp (figure 3); and a control circuit (control logic) which is connected to the first and the second sub-circuit (see figure 3) and which controls the frequency of the alternating current subject to a varying component (Lm) of the mains voltage rectified by the first sub-circuit (figure 3, elements [D1-D4, Lm, Cs, Clf, S1-S2, Rs, Cb, Dr, and Dd]).

Regarding claim 2, Ranganath discloses that the first sub-circuit comprises a filter (Clf) with one or more coils (Lm) and capacitors (Cs), a rectifier circuit (D1-D4), a switch (S1-S2) and a buffer capacitor (Cb) that is coupled to its output terminals (figure 3).

Regarding claim 4, Ranganath discloses in figure 3 that the control circuit (control logic) is connected on one side to an switch (S2) in the first sub-circuit and on the other side to one or more switches (S3-S4) in the switching device (inverter), so that the phase and/or frequency of the lamp current controlled by the switching device is controlled subject to a varying component (Lm) of for instant 50 Hz or a multiple thereof (column 5, lines 11-19 and 43-50).

Regarding claim 7, Ranganath discloses in figures 3-4 that the second sub-circuit comprises an igniter (Ld and Lr) for generating voltage pulse across the lamp so as to ignite the lamp (column 2, lines 62-65).

Regarding claim 10, Ranganath discloses, in figure 3, a method for operating a lamp comprising the steps of rectifying (D1-D4) a supplied mains voltage (Vin) and bringing it to a desired voltage level (an input voltage of the half-bridge and controlled by the controller); and generating an alternating current (see column 3, lines 63-67 and column 4, lines 1-10) wherein the frequency of the alternating current is controlled subject to a varying component (Lm) of the rectified mains voltage (Vin and column 5, lines 11-19 and 43-50).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ranganath et al. (U.S. 5,471,117).

Regarding claims 8-9, Ranganath discloses every feature of the claimed invention, as expressly recited in claim 1, excluding a voltage ranges 100V-150V and 10V-100V of the rectified mains voltages. However, such a difference is not of patentable merits since the ranged voltages can be selected at a desired level based on a particular application or environment of use and such a selection of a design choice would have been involved with only routine skills in the art. Therefore, to employ the voltage ranges of Ranganath to be suitable to a desired application or environment of use would have been deemed obvious to a person skilled in the art.

Allowable Subject Matter

6. Claims 3, 5-6 and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter:

Prior art of record fails to disclose or suggest the following limitations:

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- A circuit for a lamp comprising the second sub-circuit comprises a switching device for providing a square-wave current of a desired level of for instance +/- 0.8 A for normal operation of the lamp, in combination with the remaining claimed limitations as claimed in dependent claim 3.
- A circuit for a lamp comprising the frequency of the alternating current provided by the second-circuit is synchronized with a varying component of the mains voltage rectified by the first sub-circuit, in combination with the remaining claimed limitations as claimed in dependent claims 5-6.
- A method for operating a lamp comprising the phase of the alternating current is equal to the phase of the varying component of the rectified mains voltage, in combination with the remaining claimed limitations as claimed in dependent claim 11.

Response to Arguments

8. Applicant's arguments filed September 19, 2006 have been fully considered but they are not persuasive.

With respect to claims 1-2, 4, and 7-10, Examiner has been fully considered on the Applicant's amendment after the final office action. However, Examiner has been withdrawn the final action and given another rejection based on the claimed limitations.

Citation of Relevant Prior Art

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Trestman (U.S. 2003/0111968 A1) discloses a method and apparatus for modulating HID ballast operating frequency using DC bus ripple voltage.

Kim (U.S. 2001/0002781 A1) discloses an electronic ballast for gas discharge lamp.

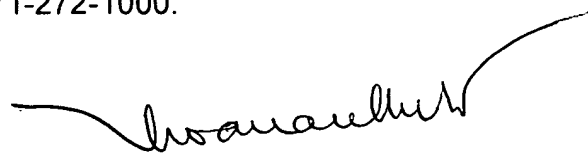
Inquiry

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung X. Le whose telephone number is 571-272-6010. The examiner can normally be reached on 8:30 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Callahan can be reached on 571-272-1740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Examiner
Tung Le
AU 2821



**Hoanganh Le
Primary Examiner**